

Tutoring (vs. No Tutoring) for English Language Learner Students

Program description:

One-on-one tutoring programs for ELL students are analyzed, in comparison with instruction-as-usual for ELL students.

Typical age of primary program participant: 6

Typical age of secondary program participant: N/A

Meta-Analysis of Program Effects

Outcomes Measured	Primary or Secondary Participant	No. of Effect Sizes	Unadjusted Effect Sizes (Random Effects Model)			Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Test scores	P	4	0.30	0.16	0.06	0.20	0.16	7	0.10	0.08	17

Benefit-Cost Summary

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2011). The economic discount rates and other relevant parameters are described in Technical Appendix 2.	Program Benefits					Costs	Summary Statistics			
	Partici-pants	Tax-payers	Other	Other Indirect	Total Benefits		Benefit to Cost Ratio	Return on Investment	Benefits Minus Costs	Probability of a positive net present value
	\$7,060	\$2,598	\$0	\$1,281	\$10,938		\$8.03	9%	\$9,576	85%

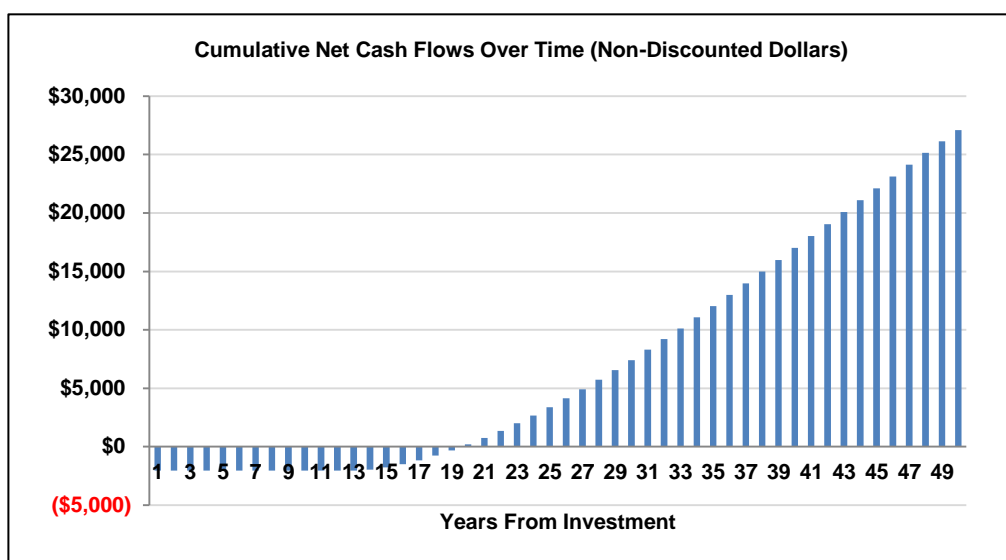
Detailed Monetary Benefit Estimates

Source of Benefits	Benefits to:				
	Partici-pants	Tax-payers	Other	Other In-direct	Total Benefits
Earnings via test scores	\$7,060	\$2,598	\$0	\$1,281	\$10,938

Detailed Cost Estimates

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The uncertainty range is used in Monte Carlo risk analysis, described in Technical Appendix 2.	Program Costs			Comparison Costs			Summary Statistics	
	Annual Cost	Program Duration	Year Dollars	Annual Cost	Program Duration	Year Dollars	Present Value of Net Program Costs (in 2011 dollars)	Uncertainty (+ or - %)
	\$2,612	1	2009	\$1,298	1	2009	\$1,366	20%

Source: Cost estimates are based on the following assumptions derived from the programs described in the studies included in the meta-analysis: on average, the programs lasted for 4.5 months, with 60 sessions of about 25 minutes each. The programs provide 1 to 3 hours of training. We use average teacher salaries (including benefits) in Washington State to compute the value of tutors' time. We assume that tutoring costs are in addition to regular classroom instruction, for which the cost estimate reflects the sum of local, state, and federal dollars allocated per-student (averaged across Washington State school districts) for the 2008-09 school year. We increased the uncertainty around the cost estimate to 20 percent. Source for dollars allocated per-student: Office of Superintendent of Public Instruction.



Multiplicative Adjustments Applied to the Meta-Analysis

Type of Adjustment	Multiplier
1- Less well-implemented comparison group or observational study, with some covariates.	0.5
2- Well-implemented comparison group design, often with many statistical controls.	0.5
3- Well-done observational study with many statistical controls (e.g., instrumental variables).	0.75
4- Random assignment, with some implementation issues.	0.75
5- Well-done random assignment study.	1.00
Program developer = researcher	0.5
Unusual (not "real-world") setting	0.5
Weak measurement used	0.5

Studies Used in the Meta-Analysis

- Calhoon, M. B., Al Otaiba, S., Cihak, D., King, A., & Avalos, A. (2007). Effects of a peer-mediated program on reading skill acquisition for two-way bilingual first-grade classrooms. *Learning Disability Quarterly*, 30(3), 169-184.
- Denton, C. A., Anthony, J. L., Parker, R., & Hasbrouck, J. E. (2004). Effects of two tutoring programs on the English reading development of Spanish-English bilingual students. *The Elementary School Journal*, 104(4), 289-305.
- Kemp, S.C. (2006). Teaching to Read Naturally: Examination of a fluency training program for third grade students. *Dissertation Abstracts International*, 67(07A), 2447A.